

CLAIMS

WHAT IS CLAIMED IS:

1. A synthetic material comprising:
5 a base material that is tacky at a temperature of less than about 80 °C, the base material providing at least one tacky surface; and
a powder layered upon the base material, the powder providing a substantially non-tacky surface at a temperature of up to about 40 °C, the powder exhibiting adhesivity at a temperature greater than 120 °C.
- 10 2. A synthetic material as in claim 1 wherein the base material is selected from the group consisting of a thermoplastic-based material, an epoxy-based material and an elastomer based material.
- 15 3. A synthetic material as in claim 1 wherein the powder includes one or more correspondence components.
4. A synthetic material as in claim 3 wherein the one or more correspondence components are substantially identical to one or more components
20 in the base material.
5. A synthetic material as in claim 4 wherein at least one of the one or more correspondence components is an epoxy material.
- 25 6. A synthetic material as in claim 5 wherein the one or more correspondence components represent 30 % by weight of the powder.
7. A synthetic material as in claim 5 wherein the one or more correspondence components represent 60 % by weight of the powder.
- 30 8. A synthetic material comprising:
a base material that is tacky at a temperature of about 23 °C wherein:
i) the base material is epoxy-based; and

ii) the base material provides at least one tacky surface; and
a powder layer on the base material wherein:

i) the powder provides a substantially non-tacky surface at a temperature
of about 23 °C;

5 ii) the powder exhibits adhesivity at a temperature greater than 120 °C;
and

iii) the powder includes at least one or more epoxy correspondence
components.

10 9. A synthetic material as in claim 8 wherein the one or more epoxy
correspondence components are substantially identical to one or more components
in the base material.

15 10. A synthetic material as in claim 9 wherein the one or more
correspondence components represent 30 % by weight of the powder.

11. A synthetic material as in claim 10 wherein the one or more
correspondence components represent 60 % by weight of the powder.

20 12. A method of reinforcing or providing acoustical damping to a member
of an article of manufacture with a synthetic material comprising:

providing a base material, the base material including primarily epoxy
components, the base material being tacky at a temperature of about 23 °C;

25 providing a powder, the powder including primarily epoxy based
correspondence components, the powder being substantially non-tacky at a
temperature of about 23 °C, the powder exhibiting adhesivity at a temperature
greater than 80 °C;

dispensing the powder upon the base material to form the synthetic material
with at least one substantially non-tacky surface and at least one tacky surface; and

30 applying the synthetic material to the member of the article of manufacture.

13. A method as in claim 12 wherein the step of applying the synthetic material includes contacting the non-tacky surface of the synthetic material such that the tacky surface of the synthetic material is adhered to the member.

5 14. A method as in claim 13 further comprising, applying release paper to the tacky surface of the synthetic material.

15 15. A method as in claim 14 wherein the step of applying the synthetic material to the member also includes removing said release paper from said synthetic material.

16. A method as in claim 15 wherein the article of manufacture is an automotive vehicle and the member is selected from the group consisting of a frame member and a body member of the automotive vehicle.

15 17. A synthetic material as in claim 16 wherein the one or more correspondence components are substantially identical to one or more components in the base material.

20 18. A synthetic material as in claim 17 wherein the one or more correspondence components represent 30 % by weight of the powder.

19. A synthetic material as in claim 17 wherein the one or more correspondence components represent 60 % by weight of the powder.

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